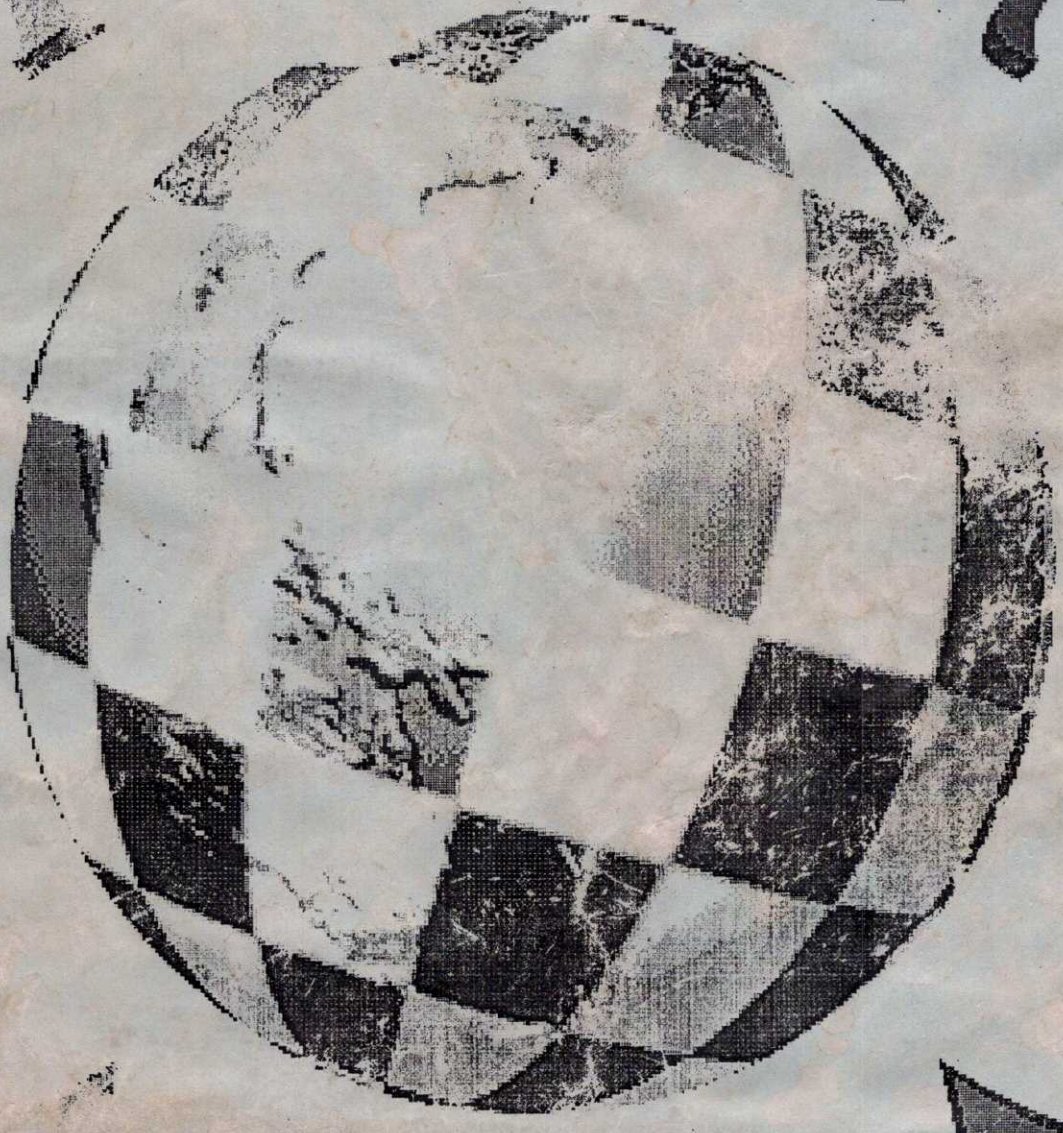
Planet MUG



The Official M.A.U.G. Magazine Issue #4

WE HAVE MOVED

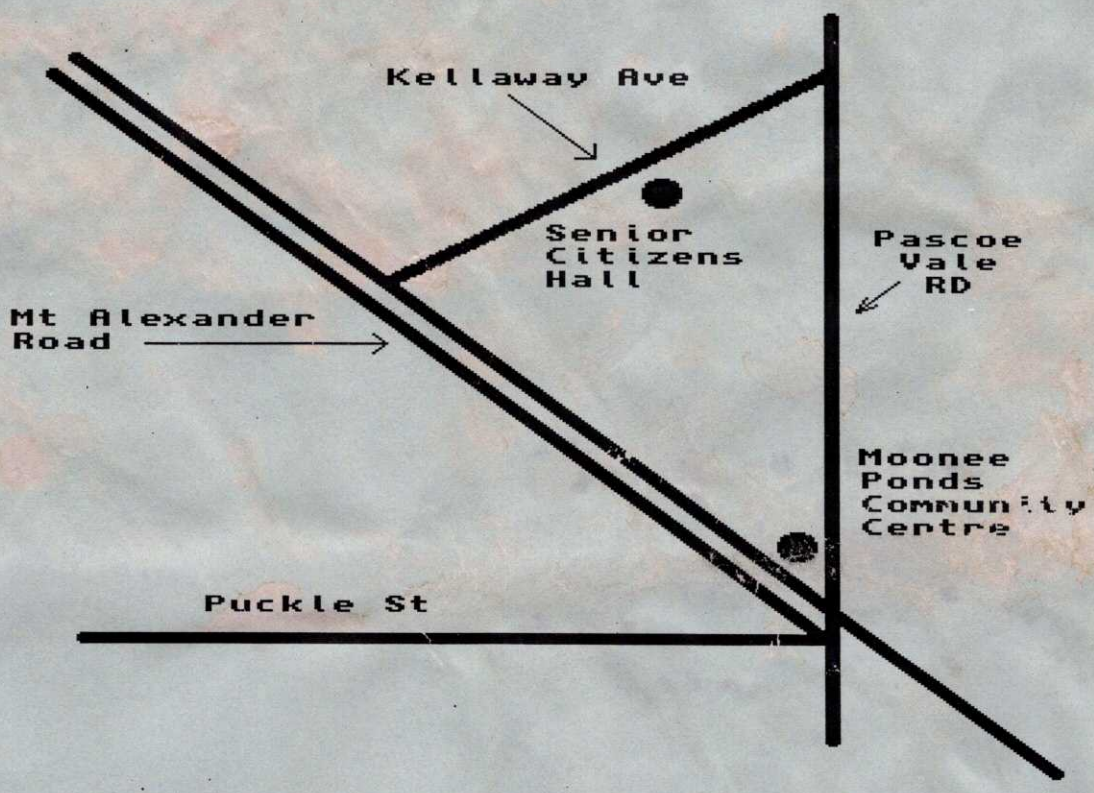
Due to renovations at the Moonee Ponds Community Centre, the Melbourne Amiga Users Group (formerly NWAUG; North West Amiga Users Group) has moved to a new venue and a new meeting night which will be effective for the next 12-18 months.

Meetings are now held on the 1st and 3rd Thursday of each month at the Senior Citizen's Hall in Kellaway Ave, Moonee Ponds.

The hall is easy to find. Refer to the map below. It has glass doors and wheelchair ramps outside. There is parking on the other side of the street.

One thing to watch that you do is bring your extension cables and plug strips as there are not a lot of power points at the new venue.

For any queries, contact David Myers on (03) 9417-7750 or davem@starnet.com.au
To contact PLANET AMIGA for submitting articles, any questions, distribution, or advertising either email (Scott) asp@axs.com.au or mail us at the Maug Address.



Forthcoming Meetings:

Thursday, December 3rd, at the Senior Citizens Hall.....
Thursday, December 17th, at the Senior Citizen's Hall...
Thursday, January 7th, at the Senior Citizen's Hall....
Thursday, January21st, at the Senior Citizen's Hall....
ALL WELCOME

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ENJOY!

Rant and Rave

My fellow Amigans, we have made the journey through another year of what(on the surface) seems like stagnation, but there is now hope. We can see that the current owners of the Amiga may have pulled their head out of the sand at last. "But what does this mean for me?" You ask. What it means is that you may be able to buy a new machine in the not-too-distant future. This new machine running on the MMC(magical mystery chip) and doing all the things you are used to but in a fraction of the time.

QNX is the new OS partner! Yes we finally got an announcement at the Cologne show (there is a video coming).

So I got Garry (our trusty co-pilot/editor type person thingy) to have a squiz at what QNX is, and what it could mean in future. This ended up being 'What the FAQ is QNX?'.

The recent Amiga show was a trifle, under organised, shall we say, so did not live up to expectations. This will hopefully be solved next year when MAUG runs a series of Amiga Swap Meets (ASMs). Followed by a show to coincide with the OS upgrade,what you haven't heard? Yes, we have OS 3.5 on the way!!

One good thing to come from the show was being able to meet all those Amigans from interstate that you have chatted to on-line etc. Also the Amiga Tech. tower for the 4000 was on display. This made several jaws drop, including some PC owners who had come to have a look at what these Amiga zealots are on about. When I went to have a look at the Tower I think I stood on at least 5 peoples tongues that were lolling about.

The temptation was too much for some, namely Michael Czajka, who purchased a tower. So the task obviously came to Michael to write a review of this awesome beast which is affectionately known as Tower-minator.

Also at the show was a demo of the new Dopus, an IRC conf. and various dealers. I demoed ProStationAudio which is due for release in the very near future and looks to be very nice (review next issue probably).

Paul Demark took a trip to Computer Magic and got PFS2 you know what that means? Yep, review time for Paul.

Jason Murray has been typing up a storm to bring us an article on AmIRC, the Amiga's best IRC client.

David brings us another overclocking overture, this time for the a3640 for the 3/4000.

Garry brings us Arexx part2 and Amiga I/O part1.

The contest mentioned in the last issue was won by Rick Hammond, and this month he has given us "2K or not 2k?". Well done Rick, I had to wade through the entries but yours was the best. 8)

Check out the Planet Amiga Awards Page, where we give credit where it is due. Enjoy the auction and enjoy your new toys! Above all it is the time to spend all those hard earned dollars on your trusty Amiga and the 2 of you will have a happy Xmas and bold New Year (the year we take back what was ours).

See you in the New Year for our Anniversary issue. We now have our very own PO BOX see below.

Contact me either:

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Scott Pringle

2K or Not 2K? That is the Question

The Amiga 2000 seems to be the forgotten machine of late.

All the action seems to focused on the 1200 and the 4000,

Even the 600 seems to have more product development done for it recently than the 2000. Why is this so?

The Amiga 2000 has the potential to 'out grunt' a 4000 for the same amount of dollars, and you get a bigger case :)

A Friend of mine recently picked up a cheap A2000 (less than $50.00).

This makes an ideal starting point for our budget powerbox.

The accelerator must be next.....

040 or 060 ? How much do you want to spend?.

GVP are doing a nice line in 2000 cards....say $950.00 for an 060.

Wildfire, I understand still make 060 cards and there are second hand items available and I believe Apollo have plans for a new 2000'060.

Well we've just passed the 1000.00 dollars mark and we are already 4-5 times faster than a 4000/25, Plain Vanilla 4000s are generally about the $1000.00 mark.....

What about plugging those drives in I hear you ask, 4000s have IDE.

Yes that is true A4000s do have IDE,

Most, if not all accelerators come with SCSI2 so any scsi devices e.g.: drives, CD Roms, Zip Drives.....

This puts you one up on a plain vanilla 4000...you may have to pay more for drives...etc but the access and transfer times will be faster.

(A lot of A4000 owners disable IDE.....)

Graphics is the next area.....No power user would be without a graphics card....It doesn't matter what machine you've got, you've gotta have one, admittedly you can do more on a 4000 with no graphics card than a 2000 is capable of but, as mentioned before, you really need one.

Cost will be the same for both machines, although Zorro3 does mean a wider choice of cards for the 4000.....

Okay what do we have? 2 machines that have cost around the same price

One is a beige box doing 78 mips.... One is a white box doing 20mips,

Which One do you want?

Okay, okay it might not be as simple as that. There may be other considerations,

There are a couple of '060 equipped A2000s at the club (Damian and Rick).

If you think this is the upgrade path for you it may pay to discuss your needs/wants with a current owner.

PS The views expressed in this article are those of an A2000 060 owner.....
(He's being modest here it's a:
2000/060 48 RAM 2.3 Gig HD
Picasso II+ GVP I/O
A2065 Delfina Lite,
a nice beastie...ED)
Rick "Rix the WarHammer"Hammond

What the FAQ is QNX?

Amiga Inc. Announces Next Generation Amiga Architecture - November 15, 1998
Amiga, Inc. has announced a partnership with QNX Software Systems Ltd. to utilize the QNX realtime operating system (RTOS) as the foundation for the Next Generation Amiga architecture.

"The Amiga shook the industry in the 80's with world leading multimedia architecture", said Jeff Schindler, General Manager of Amiga, Inc.

"QNX's RTOS resembles many of Amiga's unique qualities. It provides the foundation in reaching our vision for the rebirth of Amiga in the new millenium."

"We see this partnership as a powerful combination of superior OS technologies, common corporate cultures and shared business vision", said Dan Dodge, Chief Technology Officer and Co-Founder of QNX Software Systems Ltd.
Building upon the QNX OS foundation, Amiga, Inc. will work with QNX to add features and functions needed to create the Next Generation in Computing, as Amiga did in 1985.

Next Generation Targeted Features:

Operating System core features

- Scalable and modular design
- Fully Protected Preemtive Multitasking with processes and threads
- Efficient and compact OS (under 4MB)
- Full 32bit
- True Real Time Operating System (RTOS)
- Virtual Memory Support
- ROM-able
- Multi Processor support
- Distributed processing support
- Open standards architecture
- Support for industry standard API's

Mulitmedia

- High performance 3D (OpenGL)
- Full 24bit true color
- Support standard TV, SVGA and resolutions up to HDTV
- Multimedia Gaming centric
- Realtime animation (audio/video/graphics)

Internet/Networking

- Network centric architecture
- High performance Internet solutions
- Full Java support
- Consumer networking

Convergence

- Support new digital interface standards
- Amiga convergence API's where no standards exist
- Support leading convergence processing hardware

What the FAQ is QNX?

Frequently Asked Questions

Q: Should Amiga developers start programming for QNX now?

A: No. While QNX is the foundation OS, Amiga in partnership with QNX will add user interface enhancements, more multimedia support and a host of other convergence features. This will be released through Amiga, Inc's developers program.

Q: Will I have to re-write my application to run on Next Generation Amigas?

A: Yes. The new OS has a programming model that is similar to the Classic Amiga's, but also sufficiently different. In particular, the new OS features processes and threads (a 'thread' is like an Amiga Process/Task), virtual memory and a very clean microkernel architecture. All access to hardware is through drivers, so if your application 'hits the hardware' it will not work. Most well written applications should be able to be ported, but to take full advantage of the new architecture you will want to take advantage of the new APIs. We also intend to offer significantly better development tools than are currently available for the classic, which should case the transition.

Q: How about my Classic applications? Will they run?

A: For the Development System, we are investigating an "Amiga Classic on PCI card", resembling an A1200. Well behaved 3.1 / 3.5 Amiga Classic applications should work.

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Visit http://www.amiga.com http://www.amiga.de http://www.qnx.com.

Compiled by Garry Dan (co-editor Planet Amiga).

FAQing QNX

The following has been extracted from Frequently Asked Questions about QNX,
Author: Mitchell Schoenbrun, Micro Business Applications. The full version is available from comp.os.qnx, at website http://www.pobox.com/~maschoen and possibly(Greg?) from our BBS.

1) What is QNX? - QNX pronounced like "queue nicks" is a commercial operating system that runs on intel processors, mainly the 386, 486, Pentium, and their clones, such as MD, Nat Semiconductor, Cyrix, and SGS Thompson. The simple answer is that QNX is a realtime, microkernel, preemptive, prioritized, message passing, network distributed, multitasking, multiuser, fault tolerant operating system. This is a "true" microkernel, with the largest QNX kernel to date being less than 10K. The QNX/Neutrino microkernel is about 32K, but can run standalone, something the QNX4 microkernel cannot. The QNX/Neutrino microkernel + process manager is about 64K, which is half the size of the QNX4 microkernel + process manager, and it does more.

2) What is a Micro Kernel? - The basic design of QNX is a micro kernel. Win95, NT, UNIX and OS/2 all have a "monolithic" design in which the core operating system code is very large. Generally speaking, system level functions like hardware drivers must be part of the kernel to run. This is for, among other reasons, processor "supervisor" privileges are usually limited to kernel code for protection. In older UNIX systems, all kernel code must be linked into the OS before booting making testing such code time consuming, and configuration difficult. DOS and Win95 load all their drivers at boot time. Kernel resources are usually accessed by jumping into the kernel code. On Intel hardware this is best accomplished by the use of "gates". By jumping through a gate into the kernel, supervisor priviledges are obtained. The kernel is usually not returned from until the system function is complete. This makes the kernel multi-threaded, and so all kernel code must protect non-re-entrant areas with semaphores. In addition, kernel code must protect against processes that pass bad addresses either out of error, or with malicious intent. Many security holes are based on taking advantage of the kernel this way. QNX's micro kernel design is very different. Instead of a large kernel, the kernel is extremely small. It contains a minimum number of features implementing basic system calls. These include message passing along with other interprocess communication, interrupt handling support, and other features. The other functions of the operating system are provided optionally and modularly through processes that communicate mostly through message passing. One exception is the Proc process which provides required scheduling services and process creation services. With QNX/Neutrino, even Proc becomes optional, and the kernel itself is modular, and user configurable. Other important OS functions are provided by:

A) Fsys - Block I/O and QNX file system access

B) Dev - Device handling

C) Net - Network communications
A curious feature of QNX's message passing architecture is that these system processes have no additional priviledges unavailable to user processes. The normal line drawn between OS and application is much muddier.

3) What is QNX/Neutrino? - QNX/Neutrino is QSSL's latest OS product. QNX/Neutrino features a modular, user configurable kernel. Features such as hardware protection and a scheduler are optional. QNX/Neutrino provides similar functionality to QNX 4.24's message passing, with some differences. It may be described as QSSL's answer to the Holy Grail of OS's. It should be able to support a very wide range of systems with respect to cpu power, from small embedded 386 systems, up to very large SMP and VLAN servers. Most descriptions from QSSL include a gradual migration of QNX 4.24 to the QNX/Neutrino kernel, although no time table has been provided.

4) How is QNX different from NT? - Both QNX and NT provide a multi-processing environment for running programs. Unlike NT, QNX provides realtime capabilities. QNX needs much less disk space to run. This can be crucial if you are running an embedded system with expensive flash memory. In addition QNX provides context switching that is much faster than NT. QNX was created by a relatively small company near Ottawa Canada. NT was created by the software behemoth Microsoft in Redmond Washington.

5) What hardware does QNX run on?
QNX 4.24 runs on most Intel Processors and clones from the 386 up through the Pentium II. QSSL has been rumored to have looked at ports

to other cpu's such as the PowerPC, however, there have been no public announcements.
QNX/Neutrino works on most Intel Processors including a number of embedded processors.
AMD SC300, SC310, SC400, SC410 ~ Cyrix MediaGX ~ Intel 386EX, ULP486
National Semiconductor NS486SXL, NS486SXF ~ SGS Thomson STPC and more...
QSSL supports a lot of standard hardware such as EIDE drives, ATAPI CD roms, and a growing list of the more popular SCSI cards, such as the Adaptec AHA2940. Some limited Sound card support is provided with the Audio drivers. A wide range of Video drivers are available for use with Photon. I believe that X and maybe QNX Windows can now use these drivers. The 3rd party community provides a wide range of drivers for hardware that is not supported by QSSL. A good place to start looking is at the QSSL web site, http://www.qnx.com.

6) Does QNX support a swap file? - No. There are some plans for implementing this sometime in the future, but don't expect to see it any time soon, or even at all. There are other features that will be added to QNX well before a swap file is added. The main reason for this is that reasons for requiring realtime response/performance typically conflict with the reasons for requiring a swap file. The requirement for swapping in most QNX applications is quite low. The efficiency of the OS and Watcom compiler provide relatively small processes in terms of memory requirements. When this is combined with the ability to share code between multiple process invocations and shared libraries, the memory demands for QNX are quite moderate.

7) Does QNX support virtual memory? - Yes. Don't confuse this with a swap file though. Virtual memory only refers to the mapping of real physical memory through a MMU. QNX operates in the protected mode of the Intel processors, and makes use of LDT and GDT selectors to provide memory mapping to physical memory. Use of virtual memory also allows QNX to provide shared memory on a per-process basis as well as memory protection between processes, and even the processes that make up the OS itself.

8) What are the memory and HD requirements for a QNX system? - Depends on what you plan on
running, and if the machine is going to be a development node or not. The basic runtime will require less than 20Mb of HD, and can run stand alone with as little as 2Mb of RAM. For nodes that boot over the network, I (MZ.) have booted up machines with 512K. You can easily make a floppy bootable QNX environment. A development system will want at least 8Mb of RAM, and 120Mb of HD, but you can get away with 4Mb of RAM and File servers will want at least 16Mb of RAM, possibly more so that it can be dedicated to file system Cache.
QNX will boot from floppy, which might be all that is required for small embedded applications. You can download a demo disk from QSSL's web site that contains: QNX OS, Photon, TCP/IP, Web browser, Web server, a Dialer, and some HTML files.

9) How stable and robust is QNX? - Very, but that depends on what you make it do. If you are a developer, you tend to be able to blow up ANY operating system on a regular basis while testing code. QNX seems to be able to survive even the torture of the developer without crashing. There are many mission critical applications using QNX, everything from medical instrumentation, to nuclear reactor monitoring, to financial transaction processing, to traffic light control. You probably use QNX several times a day without being aware of it.

10) Yeah, but can I play DOOM on it? - You bet! There are versions of DOOM ported for QNX by the QSSL folks that will run on the console, Xwindows, and even Photon. You'll need a sound card, to get the full-effect, but you *CAN* play DOOM. Be warned that DOOM will consume all unused CPU ticks at or below the priority you run doom. Then again, if you are playing doom, you probably aren't running any mission critical code. Amoung other amazing things you can do with the QNX version of DOOM are to run it under Photon. Then have fun dragging it between QNX and Win95 running Phindows.

11) Where can I get this FAQ? - Currently I hope to post this FAQ in comp.os.qnx at least monthly. It should also be available at ftp://ftp.tsoft.net/pub/maschoen/qnx.faq. as well as at http://www.tsoft.net/~maschoen/faq.htm.

Compiled by Garry Dan (co-editor Planet Amiga).

Hardview

The *TOWER-minator* has arrived!

Got a 4000 with no room? Got a computer that resembles an oven? Does your CD drive hang out of the computer? Perhaps the cables rub against the fan? Got no desk space? Does the case do justice to the power hidden within?

Now there's an solution. The solution is Australian. The solution is half the price of comparable products. The solution looks better than anything else on the market. The solution is the Amiga Technologies Tower.

Imagine a chrome, steel and etched plastic monolith perched on your desktop! Imagine a tower that looks as good from the rear as it does from the front. Dubbed T-2 (Terminator 2) it's everything you've ever lusted for. Cut into the front plastic is AMIGA (with the square Amiga dot!). AMIGA and 4000 XT are cut out in the chrome back panel. All it lacks is a red light behind the chrome ...and that's coming. Really! They've got special state of the art luminescent panels on order.

So how easy is it?
Well it took me around 2 hours to pull my A4000 apart and put most of it in the Tower. It's dead easy. The motherboard is mounted on a slide out panel. The way it is set up all the original connectors are used except the mouse ports. You get 2 cables to plug into the mouse ports. These mouse cables then plug into the back panel. Simplicity itself! The only problem I had was with the floppy drive. I couldn't align it correctly. I took it back to Amiga Tech who mounted the drive on the mounting plate before adjusting the position. Having got the position correct they drilled 3 new holes to secure the plate. If you can insert cables correctly (pin 1 is where the cable is striped red) then you won't have a big problem with DIY. All up you should be done in 4 hours. Admittedly I did it really slowly and took the opportunity to clean all the parts. NB Pay special attention to the inside of your floppy drives!

So what do you get?
5 x 5.25" drive bays
1 3.5" molded bay
A new ATX power supply
2 Fans
1 hardware reset switch
5 3.5" mounting bays (at rear)
Power and Hard drive LED's.

The case has a nice solid steel frame, powder coated black. You also get additional feet which you can sit the case on.

After the transplant you have an absolutely stunning machine. You can actually see and get to all your parts. There's plenty of air flow. I can't wait till I get the special lights. Amiga will glow out at you from the dark! The only problem you have is how to show off both the front and back of the Amiga at the same time. It's a shame to hide all that chrome.

How good is it?
This tower was a show stopper at the recent Amigafest98. When IBM users start ringing because they want one you know you're onto a good thing! When people with Micronik Towers (the German $800 alternative) start drooling over them and complaining about shoddy construction you can't get a better recommendation.

How much is it?
$395 gets you a tower. $495 if you want it fitted. If you lack the patience to do it yourself the extra money is well spent. The guys at Amiga Technology can

spend hours setting up these things. I watched as they cleaned an A4000 motherboard that refused to boot reliably. In the end it turned out to be a dud budda IDE controller (not their fault). Apparently motherboards don't like to be moved. Chips can loosen up slightly. Corroded contacts can prevent reliable operation. If you're not up to trouble shooting your machine let them do it! They definitely earn their money. This is customer service plus! They even refused to take any money for helping me reseat an 060 chip with a bent pin. This kind of attention to detail is above and beyond the call of duty!

How soon can you get one?
They're flat out at the moment. If you want to DIY you should be right but, if you want them to do it you might have to wait a few days.

What else can you get?
I understand they're planning an A3000 version at some time in the future. They're also considering an A1200 version. A2000 owners might be out of luck though unless they ring up and convince Rob that there's a market for them. They also have a mini-tower version for $100 less but, to date they're not ready. In any case it's false economy.

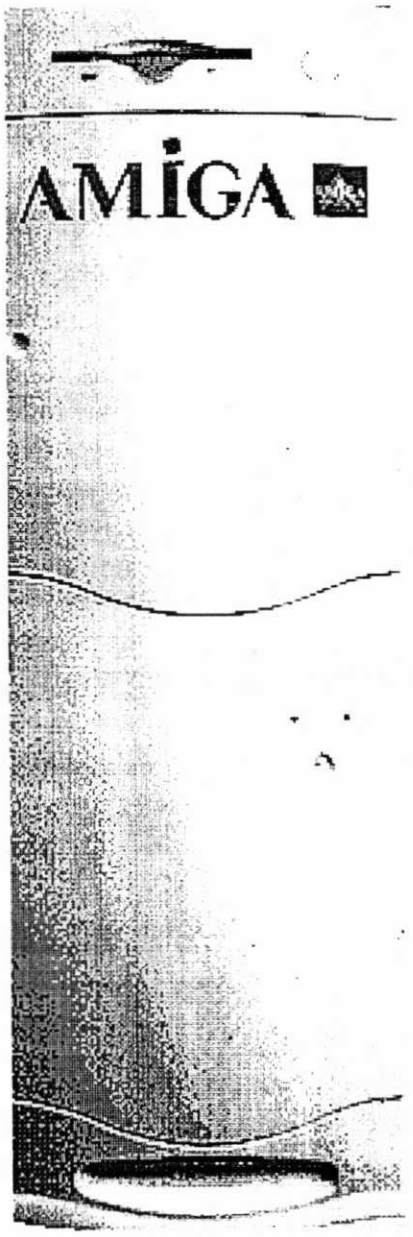
Can you say anything bad about these towers?
Basically no, although some people have grumbled that they have only the standard number of Zorro slots (they're planning more!).

Amiga Technology is in Mill Park Victoria and can be reached on ph 9436 9935 email: sales@AmigaTech.com.au web site (with pictures of the towers): www.AmigaTech.com.au. This is a product with global potential. Congratulations Amiga Tech! You've turned out a beautiful piece of hardware.

PS If you want to see a Tower turn up to the MAUG meetings 1st and 3rd Thursdays 8pm Seniour Citizens hall Kelloway Ave Moonee Ponds.

PPS. Special congratulations to CAUS (Canberra Amiga User Society) I reckon theirs was the best stand at Amigafest98 (Networking Amigas & the Internet).

Michael Czajka
slick234@hotmail.com



PFS2

Great Effects Developments (GREED)

PFS2 is a successor of a line of very fast and efficient, replacement FileSystems for the Amga. FileSystems to people who have ventured into this area is what is used to store data on your disks. One Flesystem is not the same as the next, as CrossDOS shows. One works differently to the next and the Amiga caters for using alternative ones at the same time. Some have better elements than others and some have down points with their advantages. Some are just pretty average all round. What most people use on their Amiga is FFS (Fast File System)but, there have been others like Smart File System and PFS2.

PFS2 is not something has just sprung up out of the blue in the last month or two, but a product that has evolved from a line of work originated, and now back in the hands of Michiel Pelt (Note: His name is not a spelling mistake). PFS2 Originated on Aminet and was named pfs95.lha (disk/misc). This brought users a great FileSystem on floppies that ran faster and in effect was a lot quieter too (less head trashing). Then Michiel handed over his PFS package to 4th Level Developments where they produced AFS. AFS allowed HardDrive as well as Floppy usage of their FileSystem, but after much controversy and problems between 4th Level Developments and 3rd party companies, Michiel Pelt has taken back control of his product, updated it and made it more robust and released it as PFS2.

Many people disliked AFS because of its unsupported recovery tools. PFS2 at this stage suffers from the same problem, but with increased security in PFS2, the likelyhood of loosing your data is now highly remote. The protection now at first sign makes your drive read only, so no more data can be written to it so you can recover data. And then fix the problem as required. Also the documentation is way more advanced then AFS manual ever was. I found personally the AFS manual to be helpful in limited ways, while the PFS2 manual (which is in AmigaGuide format), to be brilliant. As it you shows you in every step the way to install it, including pictures to you help you through the process.

With FFS, everyone might think, why do we need another FileSystem? Why something different then what we got. It works and works quite well for me? And if anything does go wrong it will validate itself or I can recover files easily. The reason why more people are using alternative filesystems to FFS is that FFS has problems with its design that; limit its speed and reliability of a crash while writing to a disk. The main problems are:

- Limited drive size, 4 gig drive on Workbench 3.1 FFS and limited of 4 gig partition size on newer FFS versions.
- Random order of writing data making reading and writing of files unorganised and slower.
- Insecure while writing to the disk. If you crash/reset while writing, data will be lost, in some cases more then just the file writing/overwriting.

With all the limitations FFS has in speed, security and hard-drive size, the newest beta version of Amiga International's FFS (revision 43.24), fixes up some of the

problems of speed in some ways, but the insecurity is still there as they would have to re-design the whole FileSystem to fix the problems. Just a quick word of warning, the r43.24 of FFS beta from http://www.amigaworld.net has a time-out built in, so if you plan on running it, expect after approximately 3 months the FFS to stop working; leaving you in a possibly annoying situation unable to boot your machine. IF you sit there and think, 'hey FFS is darn fast, I am going fast considering I am on a 68020 processor. Well in all truth, it is rather slow. A simple test is if you have a FileDisk for Macintosh emulation and boot from that on a FFS volume. The loading of it will be slow.

I tested a 15 meg FileDisk on a PFS2 and a FFS volume. The PFS2 volume booted off the FileDisk in 39 seconds. On FFS it took over 4 minutes (On a friends system the same FileDisk took over 15 minutes). Obviously this was a fairly fragmented FFS volume, which PFS2 tries to do. Fragmentation is when a file is written all over the drive, so the drive has to jump all over the platter to find the pieces of it. To fix this on a FFS you need to defragment (optimise) the volume with a program like ReOrg. But this process is generally unneeded on PFS2 volumes due to it trying as much as possible when saving files to the harddrive.

The test was performed on a Quantum 6.4 Gig IDE ST drive on a 150 Meg partition. It was done with the same partition and reformatted and filled with the same files onto it each time.

From the results the speed difference is quite huge. As you can see the speed difference is vast and without doubt PFS2 v4.2 is the way better choice. PFS2 is now way more robust locking the drive so it cannot be written to in the first instance and the on-line manual for it extremely informative explaining each and every step of the installation process on your harddrive so no mistakes can be made. It is available in Australia at Computa Magic (Phone: +61-(3)-9331-5600) for $85.

Below you see a result of test I did with DiskSpeed:

	FastFileSystem r43.24	ProFileSystem2 v4.2 r17.8
File Create	227 files/sec	350 files/sec
File Open	437 files/sec	525 files/sec
Directory Scan	2590 files/sec	3524 files/sec
File Delete	544 files/sec	534 files/sec

32768 Fast Mem Word	FastFileSystem r43.24	ProFileSystem2 v4.2 r17.8
Create file	725027 bytes/sec	2605056 bytes/sec
Write to file	772213 bytes/sec	2798166 bytes/sec
Read from file	1632263 bytes/sec	2119079 bytes/sec

262144 Fast Mem Word	FastFileSystem r43.24	ProFileSystem2 v4.2 r17.8
Create file	802154 bytes/sec	2502721 bytes/sec
Write to file	861056 bytes/sec	2081540 bytes/sec
Read from file	1944207 bytes/sec	1379705 bytes/sec

Softview

AmIRC - Social Engineering Made Easy

In the beginning - on the Internet at least - there was email.Users would spend hours waiting for a reply to their email from a friend, and then take hours to reply in kind. Of course, these days email is a lot faster, but we have a much more convenient and faster way to communicate with hundreds, even thousands of people at once. It's called the Internet Relay Chat - or IRC, for short.

The Amiga has had a few "big" IRC clients over the years. The first one of note was Grapevine, which some diehards still swear by today. There was also a completely separate chat system to IRC known as ClChat, with an Amiga-based server and MUI-based client (ClChatGUI developed by Oliver Wagner. ClChat wasn't very widely used, so you're all forgiven for not recognising the name. After a while, when Grapevine's development seemed to fall by the wayside, Oliver commenced work on AmIRC, the first MUI-based IRC client for the Amiga. AmIRC shared few similarities with ClChatGUI's interface, but soon became the primary focus of development.

After a few months of development, including a beta release that went public by mistake, AmIRC 1.0 was finally released in 1995. The intervening years have seen a number of significant enhancements to AmIRC (and bugfixes!), turning it into the smooth, efficient and well-featured application that it is today.

After many hours of work (and late nights), Oliver released AmIRC 2.0 earlier this year, sporting new features and even more bugfixes and enhancements. Now up to version 2.2 (and with 2.3 approaching in time), AmIRC is *the* choice for Amiga IRCing.

Using AmIRC is simple - just double click on the server you'd like to connect to after you run it. You can define channels for AmIRC to join automatically on connection, and through AmIRC's powerful ARexx interface, tell it what to do once it's connected to the server.

Once you're in a channel, AmIRC's interface will look something like the channel window screenshot seen here. The userlist can be kept separate from the channel window if screen real estate is scarce.
You can choose to chat in private with someone (as seen in the second screenshot) by simply dragging their name out of the userlist.

For all those times that someone has posted a URL into a channel or told you about a cool website in private chat, AmIRC features a URL grabber (screenshot 3), which grabs any URL (http://, https:// or ftp://) that goes past your eyes. They can all be recalled later, sent directly to the Clipboard, your Web Browser (through ARexx), or to Vapor's new Contact Manager application (also through ARexx).

Since version 2.0, AmIRC has featured a brand new plugin interface. This feature is basically for the use of people wishing to closely tie their scripts, which can now take the form of compiled code, in with AmIRC's internal workings. The overall result is a lot faster than using the ARexx interface. Version 2.2 of AmIRC features a number of

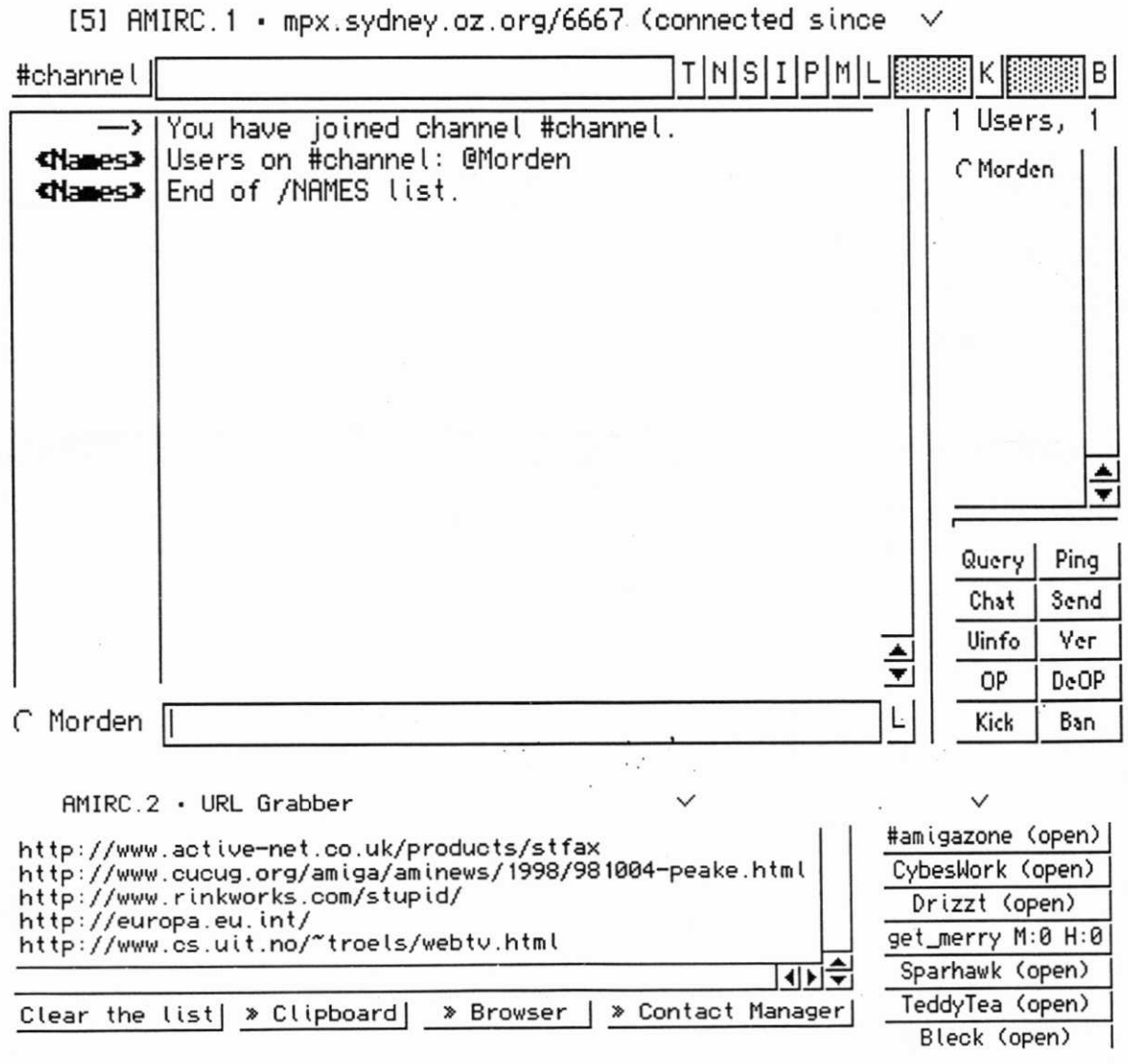
enhancements to the plugin interface over 2.0. The documentation is available from Oliver on request.

An innovative feature introduced in version 2.0 was the "lag-o-meter", a small bar (seen underneath the userlist in the first screenshot), which indicates the client's lag from the server on a scale from 1 to 10+ seconds. Unfortunately the lag was miscalculated in the 2.0 release, but this bug has been corrected for a while now. AmIRC is one of the VaporWare Internet applications, and as such is shareware.

The current fee for registration is A$40. Instant, fast and secure online registration is now available on the brand new VaporWare website, at http://www.vapor.com/ - using your credit card, you can have your keyfile in just minutes. You can also download VaporWare's registration tool, which can be used at any of the VaporWare registration sites worldwide (a full list of these sites, and a way to contact the people who run them, can be found on the website).

Some Amiga-related IRC spots:
#amigazone - mpx.sydney.oz.org
#amiga - irc.whiterose.net
#main - de1.arcnet.vapor.com

Jason Murray



Arexx

In the last issue of Planet Amiga we had an Arexx program that gathered the highlighted files from Directory Opus 4.x, how about we try doing something useful with them? One of the first tasks that this code was used for was converting a LOT of .jpg files into .ham files for mates who had fairly standard Amigas. The common software was DOpus4.x and Art Dept Pro. When finished, the program will take ANY format image (but a hi-res type is assumed since most mac or pc screens are 640+) and change it to lo-res 320 ham. It also tries to have a good guess at sizing the file with the minimum amount of scaling ops to keep quality as high as practical. If a problem occurs then an 'alert' should pop up on the DOpus screen to identify the file. The program has handled some strange and exotic sizes, 800x120 for example, but we still get the occasional dummy spit.
Open up your favorite text editor and type in this listing. You can leave out the REM's to save time ;{)
OK, listing begins:

```
/* Process the list in ADPro */
adproexit  = 1      /* 0 to exit AdPro, 1 to leave AdPro running when finished*/
CALL Locate_ADPro
IF RESULT=0 THEN EXIT 20
ADDRESS 'ADPro'
ADPRO_TO_FRONT
DO i=0 TO n-1
        firstpart=LEFT(fname.i,LENGTH(fname.i)-4)
        loadformat='UNIVERSAL'
        lopts=''
        sopts='IMAGE'
        saveformat='IFF'
        savefile=destpath||firstpart
/* RENDER_TYPE   - is 3 character colour id. ie 'HAM' '256' ' 32' etc. */
/* SCREEN_TYPE   - is a value calculated by adding to 0 the following */
/*  0 = Lores NoOscan NoLace */
/*  2 = Interlaced */
/*  1 = High Res */
/* 64 = Super High Res */
/*  8 = Horiz Oscan */
/* 16 = Vert  Oscan */
/*  4 = PAL  monitor */
/* 32 = VGA  monitor */
/*128 = Super72 */
/*256 = DFLT monitor */
/* DITHER       - is the dither mode number 0-8 from ADPro's main screen */
/* DITHER_AMOUNT - is a number from 1 to 256 used if dither is type 6, 7 or 8 */
/* First we size it as HiRes 256 */
        RENDER_TYPE '256'
        SCREEN_TYPE '7' /* HIRES PAL LACE */
        DITHER '1'
        LFORMAT loadformat
        LOAD path||fname.i lopts
/* Do Scaling if required */
'XSIZE'
CurrentWidth = ADPRO_RESULT
'YSIZE'
CurrentHeight = ADPRO_RESULT
stype = '4'
/* Do we need to scale? */
IF (currentwidth > 320) | (currentheight > 256) THEN DO
  xfactor = 640 / currentwidth
  yfactor = 512 / currentheight
  /* Should we scale width or height for a snug fit? */
  IF (xfactor ~= 1) & (yfactor ~= 1) THEN DO
    whichway = 0
    IF (xfactor >= yfactor) THEN DO
    whichway = 1
      IF (xfactor <= 1) THEN whichway = 2
    END
    IF (xfactor < yfactor) THEN DO
    whichway = 2
      IF (yfactor <= 1) THEN whichway = 1
    END
    IF (whichway = 1) THEN DO
      newwidth = currentwidth * yfactor
      newheight = currentheight * yfactor
```

```
   END
   IF (whichway = 2) THEN DO
    newwidth = currentwidth * xfactor
    newheight = currentheight * xfactor
   END
   ABS_SCALE newwidth newheight
   currentwidth = newwidth
   /* Now that scaling is complete we can make it interlaced */
   stype = '6'
  END
  /* Now we size it and make it HAM */
  ABS_SCALE (currentwidth / 2) newheight
END
RENDER_TYPE 'HAM'
SCREEN_TYPE stype /* HAM PAL - 4 NONLACED or 6 LACED */
DITHER '1'
        SFORMAT saveformat
        EXECUTE
        SAVE savefile sopts
END
IF adproexit THEN
  ADDRESS 'ADPro' ADPro_Exit
ADDRESS 'DOPUS.1'
/* All finished */
```

OK, listing ends:

Right, once this code has been saved (to be safe) we are going to insert it into the code from Planet Amiga 3. How you do this will vary with the text editor you use but the most basic method is to highlight and 'COPY' the text, usually Amiga-C, load in the program from the last issue and look for this section of the listing, it's near the top.

```
/* Process the list */
txtfile = destpath||'dummy.txt'
mode = 'W'
IF OPEN(temp,txtfile,mode) THEN
  DO i=0 TO n-1
   CALL WRITELN(temp,fname.i)
  END
  CALL CLOSE temp
/* All finished */
```

Use the backspace key to wipe out JUST THESE LINES and now 'PASTE' the text from the new code, usually Amiga-V. If all goes well the new code should be nicely inserted.

But wait, there's more.

Save the new code (to be safe) and at the very end of the listing add these lines:

```
/* Check to see if ADPro is running or load it from disk */
Locate_ADPro:
  IF ~SHOW('P','ADPro') THEN DO
    /* change the path and value in this line if needed to suit your system
       or start ADPro before using this script */
    ADDRESS COMMAND "RUN ADPRO:ADPRO BEHIND MAXMEM=4194304"
    ADDRESS COMMAND WAITFORPORT 'ADPro'
    IF RC=0 THEN RETURN 1
    ELSE RETURN 0
  END
  ELSE RETURN 1
End of listing:
```

After you've saved the file, mine's called 'MakeHAM.dopus', you're ready for testing. I find it more useful to test from a shell, that way Arexx can talk to you about any errors, you can also add 'SAY' commands throughout the listing to give a running commentary of it's progress. Start Dopus, choose a suitable destination and highlight a few piccie files. NOW put DOpus to the back, open a shell and run your new program with the command:

RX REXX:MakeHAM.dopus (assuming you saved the file to REXX:)

Since our script has 'ADDRESS' commands, it's not essential to launch it from within any particular program, it's already been told 'who' should do 'what'. You can now use Amiga-M to cycle between DOpus and ADPro and watch what's going on. The end result should be .ham versions of your selected files sitting in the destination window of DOpus, now you can add a DOpus button or ADPro macro to activate the script. If there are no .ham files then you are about to enter the exciting world of proof reading ;() Lines being split by the editor's word-wrap function is often a culprit. Have fun!

Garry Dan garryd@eck.net.au)
Co-Editor

Amiga I/O

When a mate retired a few years ago he wanted to start a new hobby, one that he'd never tried before. He went for a train layout. It started in a two car garage that was his workshop. It mutated.

As it grew it was only a matter of time before the words "It would be easier to hook a computer up to control that" were uttered. There are currently about 5 C-64's and 2 A-500's wired up, with a couple of others to one side for programming and a few for "spares", some machines and parts from club members, ta!

This article will only cover the "theory" of using the Amiga parallel port for external control, BEWARE: IF YOU CONNECT THINGS TO IT YOU CAN BLOW UP YOUR MACHINE, be VERY careful, especially if using a 600 or 1200 which have surface mount chips, very expensive!

You need to understand binary numbers, there are plenty of articles on this so look them up, or ask someone at the next meeting to explain.

Dig out your User's Manual that came with your machine and look up the Input/Output Connectors section. We're interested in pins 2 - 9, labelled D0 - D7. The port is both input and output. This is controlled by the value in the Data Direction Register or DDR, it is memory mapped at location 12575489 and can be accessed from BASIC by PEEK and POKE commands. If a bit has a "1", that pin becomes an output. If a bit has a "0" then it's pin is an input. Any pins that don't have a "1" are automatically given a "0".
POKE (12575489),255
would make all eight pins outputs. The binary for 255 is 11111111.
POKE (12575489),15
would make the first four pins, D0-D3, outputs and D4-D7 would be inputs. The binary for 15 is 00001111.

After the port has been configured with the DDR you are ready to access data through the Data Register (DR). The DR is memory mapped at 12574977. Once again you use a PEEK and POKE to manipulate to the port.

If a pin is made an output with the DDR then a "1" in the DR will place 5 volts on that line. If it has a "0" there will be 0 volts, or ground (relative to the Amiga!). If a pin is made an input by the DDR then a voltage placed on that line of between 2 to 5 volts will place a "1" in the DR and a voltage from 0 to 0.8 volts will result in a "0". Anything from 0.8v to 2v is treated as a "null" state.

Example program:
```
REM make all pins inputs
POKE(12575489),0
REM put external 5v on pins 3-5-7-9
X = PEEK(12574977)
PRINT X
REM This should print 170
REM 170 in binary is 10101010
```

Next issue a test circuit and progam.
Garry Dan (co-editor)garryd@eck.net.au

Tech Talk with David

Overclocking the Commodore A3640. The A3640 is the standard 68040 CPU card supplied for A3000 and A4000 Amigas. It is easy to overclock, there being a single 14-pin DIL form-factor crystal rated at 50MHz in the centre of the board. The A3640 also provides some of the motherboard timing, which may cause problems at certain overclocked frequencies.

I have overclocked three of these boards, by replacing the 50MHz oscillator by one rated at 60MHz. This gives 30MHz for the 68040. All systems work reliably at this speed, and it's an ideal way to get some extra performance out of this board. One user has been able to clock this board as high as 40MHz, and another I have heard of, has managed to get 37MHz. This particular user was not able to get a lower speed of 66MHz, possibly because of the design of the A3640, which uses delay lines for part of it's clock circuitry. These delay lines provide a fixed amount of delay which becomes inappropriate when the clock frequency is changed too much. I suspect a "wrap around" effect occurs when the frequency is increased still further, the amount of delay once again becoming more or less correct over 37MHz or so. However, most 25MHz 68040s won't function at these high frequencies, although I do know of some that have done so.

I recommend that when overclocking this board, fit a socket for the oscillator. An ordinary 14-pin IC socket is fine. Remove the unconnected pins before soldering it in. Try an 80MHz crystal first (giving an 040 speed of 40MHz). If that does not work, try a crystal of around 74MHz (giving 37MHz for the 040). If that does not work, you will need to drop to 60MHz (30MHz for 040) as frequencies in between such as 66MHz don't work.

Don't forget that you do any overclocking at your own risk. I cannot be held responsible if you fry your computer when attempting these modifications. Also remember that if your hardware is still under warranty, doing any form of modifications to it (including overclocking) will void the warranty. I advise if you are not familiar with soldering and anti-static techniques, get a technician to do it for you.

For more information go to www.starnet.com.au/davem/amiga.html

In our next article we will talk about overclocking the Warp Engine.

Points to watch out for:

* Pay attention to correct crystal orientation. Getting it wrong will destroy the oscillator module!
* Use a heatsink fan if you are using a desktop A3000/A4000 and/or you are overclocking it past 30MHz.
* You will need to remove "speedRamsey" if in use - it won't work on overclocked systems, unless you have 40nS or better SIMMs!
* Make sure the 200 pin CPU connector to the motherboard is clean and in good condition.
* Thoroughly check all parts of your system, including any Zorro III cards, especially when overclocking at 37 or 40MHz - this is due to changes in system timing.

Back to main Amiga Page

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David Myers

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Planet Amiga Awards

Well it's that time of year and we here at Planet Amiga decided that it was time we gave some credit where it was due. The result of this is that we have the Planet Amiga Awards. There are three levels of merit, attained by service to the cause of Planet Amiga and the Amiga. These levels are: Gold, Silver and Bronze.

and the winners are (drum roll please...):

A Gold Planet Amiga Award goes to

Garry Dan

for submission of the most articles and a lot of help. Well Done and thanks!

A Silver Planet Amiga Award goes to

David Myers

for giving us a dependable regular feature and lots of news.Thanks!

A Bronze Planet Amiga Award goes to

Paul Demark, Michael Czajka

Rick Hammond, Bill Hodge

Olly and Erik Koenders

for articles, competitions, perspectives, reviews, cover pictures and printing

Thank you all for your help in our first (of many) Years!

I hope you all have a Happy New Year.

Maybe next year you will be in here.

Scott (the tired and over worked editor) Pringle

Long may your Amiga Shine forth its guiding light

Did you know that Santa's sleigh is controlled by an Amiga?

BEG, BORROW OR STEAL

LOST! Randall has lost an issue of CU-Amiga that he'd kindly brought to one of the club meetings, when he arrived home he found it hadn't been packed up. It's the issue that had the article and instructions for UFO-Enemy Unknown. If you were one of the last to leave that meeting and collected it to return at the next meeting or if anyone can help track the little bugger down please contact us here at Planet Amiga.

Emplant Deluxe Card for sale, comes with 120 Mb HD with SYS7.5, Word 5.1a, Excel 4, manuals
$350 o.n.o. Contact Geoff Chan 0411 180 717

Quicknet ethernet card. Suits any Zorro II/III Amiga. Quicknet network Drivers/manual also available
$200 Neg. Contact Randall Lasini suicyde@eck.net.au

Delfina Lite sound cards for Amiga 2/3/4000 for sale. Due to high demand I am increasing the Xmas special I had. Delfina Lite + Hi Speed Serial port for $650 (thats $100 below r.r.p.) includes SoundFX and System Software.
Contact Scott Pringle if interested. 03 9384-0750 or asp@axs.com.au

Delfina 1200!!!!!! Due for release in the coming weeks is the long awaited Delfina 1200. Having all the functionality of the Delfina lite but fitting inside the desktop Amiga 1200 case. Prices will follow soon. I will demo one at the club meeting early in the new year. Watch this space for more details!

Delfina can make your sound jump through hoops!

Submissions

This is where all your letters and correspondence will be printed in future editions of the magazine. Please feel free to write or submit anything you like (Amiga related, of course).

Future editions of the magazine depend upon the support of the readers.

WE NEED TO KNOW WHAT YOU WANT!

So drop us a line or send us some mail (e or snail) or hand in your submissions at a user group meeting. Send to **Planet Amiga c/o MAUG, PO BOX 13 , Moonee Vale LPO, Vic 3055** or e-mail me at **asp@axs.com.au** or phone **Michael** on **(03) 9311-8256**

COMING UP

Next issue we will have????? Delfina 1200, hopefully, and the Delfina hi speed serial port, ProStationAudio, JAVA on the Amiga and much much more!!!
Also anything else you would care to contribute!

SEE YOU THERE!

Contributions

Thanks to all who helped in the production of this magazine including :-
Garry Dan (co-editor who got most bof this issue done and the Arexx and Amiga I/O articles.
David Myers (for the tech talk column, i wonder what he will overclock next?)
Paul Demark for PFS2 and printing.
Rick Hammond for 2K or Not 2K? That is the Question..
Alyss Moorman for compiling and checking the mag.
Michael Czajka for Tower-minator
and Olly and Erik Koenders (for the cover pic), if I missed anyone I apologise. ;)
But most of all thanks for supporting the Amiga and it's Users.
Scott Pringle (ed)

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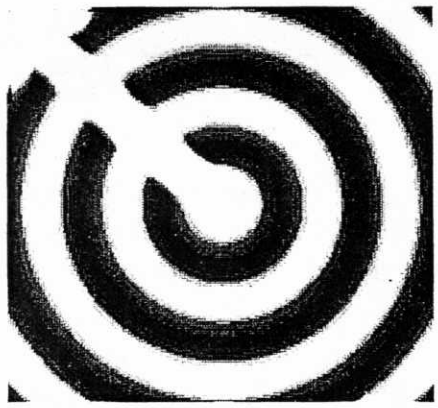
AMIGA POWER

still the only one worth knowing



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